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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
1755	5

DATE MAILED: 01/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,178

Applicant(s)

TRANQUILLA, JAMES M.

Examiner

Michael A Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

Numbers "20" and "22" are not defined in the specification.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims 1-10 and 12-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 13 and 15 are indefinite as to the term "predetermined" because according to applicants own definition, it merely means determined beforehand. See Joseph E. Seagram and Sons, Inc. v Marzall, Comr. Pat. 84 USPQ 180. What does this encompass?

Claim 5 is indefinite because the examiner is unclear as to if this is the carbon content of the fly ash before of after treatment. The claim should be amended to clarify this.

Claim 15 is also indefinite as to the term "its" (line 4) because it does not clearly define the claimed invention.

The other claims are indefinite because they depend on indefinite claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trerice in view of John.

Trerice teaches in the entire document, specifically figure 1 and the claims, a method of reducing carbon levels in fly ash comprising exposing fly ash, in a chamber, to microwave energy (at the claimed frequency) in the presence of a ceramic media (conventional ceramic material-see column 7, line 38) while blowing an oxidizing source into said chamber. The temperature of the chamber is said to be 600 degrees C.

John teaches in column 1, lines 24-32 that the claimed initial and final carbon contents of fly ash are known.

The primary reference teaches a method which reads on the instant claims because it is the examiners position that the recitation of "ceramic media" in the above method encompasses the claimed "carbon free" material in the absence of any evidence showing the contrary.

Although the limitation of instant step (c) might not be literally defined, it is the examiners position that once the carbon content is reduced to a desired level, terminating the exposure is routine to the skilled artisan. The use of a monitoring system (claims 3 and 17) is obvious to the skilled artisan in order to monitor the temperature of the exposed fly ash during the above method, so as to determine when the fly ash reaches the desired temperature. The initial and final carbon contents (claims 5 and 11) are obvious because unprocessed fly ash generally contains the claimed amount of carbon (see John). The final carbon content is obvious depending on the desired end use of the fly ash. Since many applications require the fly ash to

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have a relatively low carbon content (below 3%-see John), the reduction of the carbon content to this level is obvious to the skilled artisan. The power level and duration times of claims 7 and 8 are obvious to the skilled artisan in order to maximize the microwave radiation of the fly ash, which would have been obvious through routine experimentation and optimization. In the alternative, although the reference does not literally define these limitations, this does not preclude the method of the reference from having these power levels and duration times. It is therefore the examiners position that since the reference fails to mention any specific power level and duration time (criticality), this (the absence of any such limitation) constitutes a broad teaching of these criteria, as long as the final carbon reduction is met. In view of this, it can be reasonably interpreted that the claimed limitations are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). The size of the fly ash (claim 9) is also obvious depending on the size desired for a particular application. In addition, the desired particle size is a function of the application and mere recitation of that size does not represent a patentable distinction over this reference to one of ordinary skill in the art, lacking evidence to the contrary. The limitations of claims 12 and 13 are obvious to the skilled artisan in order create a continuous method, which is beneficial in terms of economics and time (the use of a continuous process will save time and money). The examiner acknowledges that the fly ash of the reference is not directly placed in a microwave reactor but it is the examiners position that since exposure to microwave radiation is known, the use of a microwave reactor, as the chamber of the reference, is obvious to the skilled artisan, absent evidence to the contrary. Finally, although the reference does recite "reducing ammonia

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levels” as in instant claim 15, no patentable distinction is seen to exist because the method is the same.

The examiner acknowledges applicants comment of the primary reference on pages 5-6 of the specification, but fails to see any patentable distinction between the reference and the claimed method in the absence of comparative evidence.

Claim 14 would be allowable if amended to overcome the indefinite rejection and if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reference fails to teach the limitations of this claim.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

“A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968)”. In addition, “A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments” See *In re Van Marter*, 144 USPQ 421.

“A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co.*

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v. Biocraft Lab. Inc. 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976)".

Applicants use process limitations to define the product and "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964.

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

The additional references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Marcheschi whose telephone number is (703) 308-3815. The examiner can be normally be reached on Monday through Thursday between the hours of 8:30-6:00 and every other Friday between the hours of 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Mark L. Bell, can be reached at (703) 308-3823.

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Amendments can also be sent by fax to the numbers set forth below:

For after final amendments, the fax number is (703) 872-9311;


For non-final amendments, the fax number is 703 872-9310.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Michael Marcheschi

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1/03



Michael Marcheschi
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